

IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method for establishing a virtual path within a frame relay network wherein frames are transmitted over a plurality of virtual circuits from a first switching node to a second switching node, said methods comprising:

transmitting by said first switching node to said second switching node, a first control message transmitting information specifying a virtual path to be established, and specifying two or more virtual circuits to be combined to form said virtual path, said information comprising:

a source virtual circuit identifier, which corresponds to an input adapter of said first switching node;

a source port identifier, which corresponds to an input port of said first switching node;

a destination virtual circuit identifier, which corresponds to an output adapter of said second switching node; and

a destination port identifier, which corresponds to an output port of said second switching node;

receiving a frame, at said second switching node, wherein said frame has an identifier corresponding to said virtual path; [[and]]

forwarding said frame, utilizing said second switching node, to a destination determined based on said two or more said virtual circuits specified in said first control message[[.]];

transmitting to said second switching node, a fourth control message, sent by said first switching network, for removing one of said two or more virtual circuits from said virtual path, wherein said transmitting to said second switching node further includes:

starting a plurality of activities timers, wherein each of said two or more virtual circuits combined to form said virtual path corresponds to one of said activities timers;

resetting, for each frame received for said two or more virtual circuits combined to form said virtual path, the corresponding activity-timer;

detecting, by the expiration of one of said activity-timers, an extended period of non-activity by one of said virtual circuits which correspond to said expired activity-timer; and

transmitting to said second switching node said fourth control message, sent by said first switching network, for removing from said virtual path, said virtual circuit corresponding to said expired activity-timer.

2. (original) The methods of claim 1, wherein said step of transmitting said first control message includes the step Of handling a data link connection identifier, corresponding to a predetermined value, for identifying said purpose of first control message.

3. (original) The method of claim 1, wherein said step of transmitting said first control message includes the step Of transmitting a field for identifying each of said two or more said virtual circuits.

4. (canceled)

5. (original) The method of claim 1, further comprising the step of:
transmitting by said second switching node to said first switching node, a second control message conveying acknowledgment of said request to establish said virtual path or rejection of said request to establish said virtual path.

6. (original) The method of claim 5, further comprising the step of:
transmitting to said first switching node to said second switching node, a third control message acknowledging a reception of said second control message by said first switching node.

7. (original) The method of claim 1, further comprising the step of:
starting a timeout timer, by said first switching node, when said first control message is transmitted;

detecting an error when said timeout timer expires prior to receiving a second control message from said second switching node, wherein said second control message conveys acknowledgment of said request to establish said virtual path or rejection of said request to establish said virtual path.

8. (canceled)

9. (original) The method of claim 1, further comprising the step of:
transmitting to said second switching, a fifth control message, sent by said first switching
network, for canceling said virtual path.

10. (canceled)

11. (previously amended) A system for establishing a virtual path within a frame relay, said system comprising:

a frame relay network including a plurality of virtual circuits for transmitting frames from a first switching node to a second switching node;

a virtual path established by a first control message transmitted by said first switching node to said second switching node, defining a virtual path, and specifying two or more virtual circuits to be combined to form said virtual path, said first control message specifying:

a source virtual circuit identifier, which corresponds to the input adapter of said first switching node;

a source port identifier, which corresponds to the input port of said first switching node;

a destination virtual circuit identifier, which corresponds to the output adapter of said second switching node; and

a destination port identifier, which corresponds to the output port of said second switching node;

a frame, having an identifier corresponding to said defined virtual path, received by said second switching node and then forward said frame to a destination determined by said two or more virtual circuits specified in said control message; and

a plurality of activities timers, wherein one said activities timers corresponds to each of said two or more virtual circuits combined to form said virtual path, wherein for each frame received for said two or more virtual circuits combined to form said virtual path, said corresponding said activity-timer is reset;

an error condition signal, wherein said error condition signal is generated from the detection by the expiration of one of said activity-timers, an extended period of non-activity by one of said virtual circuits which correspond to said expired activity-timer; and

a fourth control message, sent by said first switching network in response to said error condition signal, for removing from said virtual path, said virtual circuit corresponding to said expired activity-timer.

12. (original) The system of claim 11, wherein said control message includes a data link connection identifier, corresponding to a predetermined value, for identifying said purpose of first control message.

13. (original) The system of claim 11, wherein said control message includes a field for identifying each of said two or more virtual circuits.

14. (canceled)

15. (original) The system of claim 11, further comprising:

a second control message transmitted by said second switching node to said first switching node, conveying acknowledgment of said request to establish said virtual path or rejection of said request to establish said virtual path.

16. (original) The system of claim 15, wherein said first switching node is adapted to transmit in response to said second control message, to said second switching node a third control message acknowledging a reception of said second control message by said first switching node.

17. (original) The system of claim 11, further comprising:

a timeout timer, set by said first switching node when said first control message is transmitted;

detecting an error when said timeout timer expires prior to receiving a second control message from said second switching node, wherein said second control message conveys acknowledgment of said request to establish said virtual path or rejection of said request to establish said virtual path.

18. (canceled)

19. (original) The method of claim 11, wherein said first switching node is adapted to transmit to said second switching, a fifth control message, for canceling said virtual path.

20. (canceled)